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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,898	06/05/2006	Gerd Hexels	LORWER P4SAUS	1922
20210 7590 06/19/2008 DAVIS BUJOLD & Daniels, P.L.L.C. 112 PLEASANT STREET CONCORD, NH 03301				
EXAMINER				
HOEY, ALISSA L				
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3765				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/581,898

**Applicant(s)**

HEXELS, GERD

**Examiner**

Alissa L. Hoey

**Art Unit**

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**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 37, 41-50, 53-55, 57-62, 64 and 71 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 37, 41-50, 53-55, 57-62, 64 and 71 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

This is in response to amendment received on 11/26/07. The claims have been amended along with the specification. Claims 1-36 are cancelled along with claims 38, 40, 51, 52, 56, 63 and 65-70. Claims 37, 41-50, 53-55, 57-62, 64 and 71 are non-finally rejected below based on newly found prior art.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claim 57 is rejected under 35 U.S.C. 102(e) as being anticipated by Von Blucher (US 2005/0076541).

Von Blucher teaches the following:

57. (CURRENTLY AMENDED) ~~The lower leg protective apparel according to ~, claim 56, wherein the carbon layer (8) comprises~~ A lower leg protective apparel for ~, providing protection from one of chemical and biological noxiants, the lower leg protective ~,  
apparel having a plurality of plies and comprising: ~- an outersock (3), ~- a laminate (7, 5, 8), disposed on an inner side of the outersock (3), comprising: ~,

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a flexible, windproof and water-rejecting membrane (7) which forms the outer ~, surface of the laminate and which forms at least a barrier to biological noxiants, ~,  
a carbon layer (5, 6) which is disposed underneath the membrane (7) and ~, comprises  
a fabric of loop-drawingly knit activated carbon fibers (page 6, see claim 19). ~,

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 37, 41-42, 45-50, 53-55, 58-61, 64 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Von Blucher (US 2005/0076541) in view of Pacanowsky et al. (US 4,809,447).

In regard to claim 37, Von Blucher teaches a lower leg protective apparel for providing protection from one of chemical and biological noxiants, the lower leg protective apparel having a plurality of plies and comprising:  
 an ~~outside leg part~~ outersock (3) anti, ~~disposed in the interior of the outside leg ~, part (1), ~'~~

a laminate (7, 5, 8), disposed on an inner side of the outersock (3), which comprises a flexible, windproof, breathable and water-rejecting membrane (7) which ~, forms the outer surface of the laminate (7, 5, 8) and which forms at least a barrier to biological noxiants and at least a partial barrier to liquid chemical noxiants, ~,

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a carbon layer (5) which is disposed underneath the membrane (7) and which comprises carbon in one of a fibrous or particulate form (paragraph 0030), and ~, an inner textile ply (8), and ~, an innersock (4) disposed as a second textile ply on an inner side of the ~, laminate (7, 5, 8); and the outersock, the laminate and the innersock are bonded to one another as a single unit (paragraph 0024).

However, Von Blucher fails to teach the outersock and the innersock being fabricated from a plurality of cuts, the seams, between the cuts being sealed by a ~~waterproof material~~ a seam-sealing tape comprising a waterproof material.

Pacanowsky et al. teaches a sock that is fabricated from a plurality of cuts and the seams between the cuts are sealed by a waterproof material (see figures 1, 2, 5: column 3, lines 37-43).

In regard to claim 41, Von Blucher wherein the plurality of plies (3, 7, 5, 8, 4) can be sewn together (paragraph 0024).

In regard to claim 42, Von Blucher teaches wherein the plurality of plies (3, 7, 5, 8, 4) are capable of being sewn together at their upper ends and in a foot tip region (paragraph 0024).

In regard to claim 45, Von Blucher teaches wherein the membrane (7) is microporous (paragraph 0040).

In regard to claim 46, Von Blucher teaches wherein the membrane (7) comprises polytetrafluoroethylene (paragraph 0040).

In regard to claim 47, Von Blucher teaches a lower leg protective apparel for

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providing protection from at least one of chemical and biological noxiants, the lower leg protective apparel having a ,

plurality of plies and comprising: an outersock (3), and ~, a laminate (7, 5, 8), disposed on an inner side of the outersock (3), comprising: ~,

a flexible, windproof and water-rejecting membrane (7), comprising a ~,

polytetrafluoroethylene membrane (paragraph 0040), which forms the outer surface of the laminate (7, 5, 8) and ~, pores of the membrane (7) have a size such that the pores are pervious to water vapor but , the pores are resistant to permeation of biological and chemical noxiants through the pores (paragraph 0040),

a carbon layer (5) which is disposed underneath the membrane (7) and ~,, which comprises carbon in a fibrous form (6), and ~, an inner textile ply (8).

\_ However, von Blucher fails to teaches the outersock being fabricated from a plurality of cuts and the seams between the cuts are sealed by a waterproof material.

\_ Pacanowsky et al. teaches a sock that is fabricated from a plurality of cuts and the seams between the cuts are sealed by a waterproof material (see figures 1, 2, 5: column 3, lines 37-43).

In regard to claim 48, Von Blucher teaches a lower leg protective apparel for providing, protection from one of chemical and biological noxiants, the lower leg protective apparel ,

having a plurality of plies and comprising: an outersock (3), ~, a laminate (7, 5, 8), disposed on an inner side of the outersock (3), comprising ~,

a flexible, windproof and water-rejecting membrane (7) with the ~, membrane (7) being

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one of a polyester, a polyether and a mixture of a polyester and a ~, polyether (paragraph 0040) and which forms the outer surface of the laminate (7, 5, 8) and which forms at least ~, a barrier to biological noxiants and at least a partial barrier to liquid chemical noxiants, ~, a carbon layer (5) disposed underneath the membrane (7) and which ~, comprises a fabric of one of a woven carbon fiber material and aloop-drawingly knit carbon ~, fiber material (6), and ~, an inner textile ply (4).

However, Von Blucher teaches wherein at least one of the outersock (3) and the innersock (4) is fabricated from a ~, plurality of cuts, and the seams between the cuts (4, 5, 6) are sealed by a waterproof material.

Pacanowsky et al. teaches a sock that is fabricated from a plurality of cuts and the seams between the cuts are sealed by a waterproof material (see figures 1, 2, 5: column 3, lines 37-43).

In regard to claim 49, Von Blucher teaches wherein an active surface area of a carbon layer (5, 6) is in a range from 1000 to 1200 m<sup>2</sup>/g (paragraph 0033).

In regard to claim 50, Von Blucher teaches wherein a thickness of carbon layer (8) is in a range from 0.2 to 1.0 mm (paragraph 0033).

In regard to claim 53, Von Blucher teaches wherein the membrane (7) is based on cellophane (paragraph 0040).

In regard to claim 54, Von Blucher teaches wherein the membrane (7) comprises one of polyvinyl alcohols, polyacrylamides or polyurethane (paragraph 0040).

In regard to claim 55, von Blucher teaches wherein the carbon layer (8) is provided with active spherules of carbon (paragraphs 0033-0034).

In regard to claim 58, Von Blucher teaches wherein the ~~outside leg part~~ outersock (3) comprises one of wool, cotton, silk, ~- polyester, polypropylene, polyamide, polyacrylic and mixtures thereof (paragraph 0028).

In regard to claim 59, von blucher teaches wherein the textile ply (8) in the laminate (7, 5, 8) is one of a woven and a loop-formingly knit fabric (paragraph 0023).

In regard to claim 60, Von Blucher teaches inherently wherein the innersock (4) is capable of being hydrophilic (paragraph 0029).

In regard to claim 61, Von Blucher teaches wherein the ~~inside leg part~~ innersock (4) is made of manufactured fibers (paragraph 0029).

In regard to claim 62, von Blucher teaches wherein the ~~inside leg part~~ innersock (4) is capable of comprising one of polypropylene, ~, polyamide, polyester and mixtures thereof (paragraph 0029).

In regard to claim 64, von Blucher teaches, wherein the ~~inside leg part~~ innersock (4) is stitched. However, Von Blucher fails to teach the yarn being a with a fleecy spun yarn.

It would have been obvious to have provided the yarn being a fleecy spun yarn or any other type of yarn used for stitching in garments, because as long as the innersock is stitched together the yarn type can be chosen from any well known yarn types including a fleecy spun yarn.

In regard to clam 71, Von Blucher teaches wherein the textile ply (8) is capable of



being hydrophilic (paragraph 0023).

It would have been obvious to have provided the sock garment structure of Von Blucher with the cuts and stitch construction of Pacanowsky et al., since the sock garment of von Blucher constructed in cuts instead of each layer being one cut would provide a sock that can be made in a more ergonomic manner to specifically fit the contours of the foot, instead of a cylindrical tube.

#### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and can be found cited in PTO-892 form submitted herewith.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alissa L. Hoey whose telephone number is (571) 272-4985. The examiner can normally be reached on M-F (8:00-5:30) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Welch can be reached on (571) 272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alissa L. Hoey/  
Primary Examiner, Art Unit 3765